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For: PORTABLE TERMINAL APPARATUS, A GAME EXECUTION SUPPORT APPARATUS FOR SUPPORTING EXECUTION OF A GAME, AND COMPUTER READABLE MEDIUMS HAVING RECORDED THEREON PROCESSING PROGRAMS FOR ACTIVATING THE PORTABLE TERMINAL APPARATUS AND GAME EXECUTION SUPPORT APPARATUS

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STATEMENT UNDER 37 C.F.R. 1.55(a)

Sir,

I, Mitsuhiro Tsuchiya, hereby declare that I am conversant with both English and Japanese languages, and certify to best of my knowledge and belief that the attached is a true and correct English translation of Japanese Patent Application No. 2000-234512 filed on August 2, 2000.

Mitsuhiro Tsuchiya

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[Title of the Invention] Portable Terminal Device, Game Execution Support Device, and Recording Medium

[Claims]

1. A portable terminal device having music data registration means which registers music data sets serving as a plurality of distributed music data sets, comprising:

storage means for storing game information distributed from a game execution support system which distributes game information including a game operation program; and

control means which causes a game to proceed by executing the operation program and effects game presentation in consideration of music data which have been selected from music data sets in accordance with an instruction.

2. The portable terminal device according to claim 1, wherein the control means causes a game to proceed in such a way to arrange a display object to be acquired in a background image on a game screen, to pan the background image in a predetermined direction, and to increase a score when a character is caused to perform an action so as to acquire the display object in accordance with an operation performed by way of operation means or to terminate a game when the character is caused to perform an action so as to collide with a specific display object.

3. The portable terminal device according to claim 2, wherein the control means has means for transforming the character when the number of display objects acquired by the character exceeds a predetermined number.

4. The portable terminal device according to claim 3, wherein the predetermined value is set according to the type of the display object.

5. The portable terminal device according to any one of claims 1 through 4, wherein the control means corresponds to means for taking the selected music data as a background music for a game in progress.

6. The portable terminal device according to any one of claims 2 through 5, wherein the control means corresponds to means for displaying, within the game screen, the display object corresponding to the selected music data.

7. The portable terminal device according to any one of claims 2 through 6, wherein the control means has means for transmitting, to the game execution support system, a control signal which enables acquisition of game information used for a game corresponding to the selected music data when the number of display objects acquired by the character exceeds a predetermined number.

8. The portable terminal device according to claim 7, wherein the control means has means for effecting a wait screen display using game information transmitted from the game execution support system.

9. The portable terminal device according to any one of claims 1 through 8, wherein the music data correspond to ringing melodies.

10. A game execution support system which distributes game information including an operation program required for enabling execution of a game, comprising:

means for distributing game information including a game operation program in accordance with a distribution request output from a portable terminal device;

means for receiving a control signal which is transmitted from the portable terminal device and enables acquisition of game information used for a game corresponding to music data which has been selected in accordance with an instruction; and

means for enabling distribution of the game information to the portable terminal device in response to receipt of the control signal.

11. The game execution support system according to claim 10, wherein the music data correspond to ringing melodies.

12. A computer-readable recording medium having recorded thereon a program for activating a portable terminal device equipped with music data registration means, which registration means registers music data sets corresponding to a plurality of distributed music data sets, comprising a program for effecting:

storage of game information distributed from a game execution support system which distributes game information including a game operation program; and

execution of the operation program for causing a game to proceed, and game presentation in consideration of music data which have been selected from among music data sets in accordance with an instruction.

13. A computer-readable recording medium having recorded thereon a program for activating a game execution support system which distributes game information including an operation program required for effecting a game, comprising a program for effecting:

distribution of game information including a game operation program in accordance with a distribution request output from a portable terminal device;

receipt of a control signal which is transmitted from the portable terminal device and enables acquisition of game information used for a game corresponding to music data which has been selected in accordance with an instruction; and

distribution of the game information to the portable terminal device in response to receipt of the control signal.

14. The recording medium according to claim 12 or 13, wherein the music data correspond to ringing melodies.

[Detailed Description of the Invention]

[0001]

[Field of the Invention]

The present invention relates to a portable terminal device which enables a player to play a game, to a game execution support device for supporting the player's playing of a game, and to a recording medium having recorded thereon a program for the support device.

[0002]

[Conventional Art]

There has hitherto been proposed a system which enables a player to play a game while information is exchanged bidirectionally between a server and a portable terminal device, such as a portable cellular phone etc.. Games to be executed by a system of this type include a variety of battle-type games, such as an Othello (reversi) game, in which an owner of a portable cellular phone plays a game with a server. There has also been proposed another portable terminal device which does not effect bi-directional communication of information between a portable terminal device and a server at all times during the course of a battle. However, the portable terminal device accesses the server and downloads into a portable cellular phone an operation program required for executing a game, thereby enabling the owner to enjoy playing a game. Techniques for enabling the portable terminal device of this type to execute a game have developed recently as a result of a recent IT revolution.

[Problems to be Solved by the Invention]

Even when an attempt has been made to enable a player to play a game through use of a portable terminal device by means of putting IT techniques to full use, in actuality as a player accumulates rich experience in games, the player becomes less interested in games. Hence, it has been desired to enable sustainment of the player's interest in games by means of a contrivance peculiar to the portable terminal device.

[0003]

The present invention has been conceived to solve such a problem in the above-described portable terminal device and is aimed at providing a portable terminal device which enables playing of a game by utilization of music data registered in the portable terminal device, a game execution support device, and a recording medium having recorded thereon a program for the portable terminal device.

[How to Solve the Problems]

To this end, the present invention provides a portable terminal device having music data registration means which registers music data sets serving as a plurality of distributed music data sets, comprising:

storage means for storing game information distributed from a game execution support system which distributes game information including a game operation program; and

control means which causes a game to proceed by executing the operation program and effects game presentation in consideration of music data which have been selected from music data sets in accordance with an instruction.

[0004]

According to the present invention, the control means causes a game to proceed by execution of an operation program. Further, in consideration of music data selected from among music data sets, game presentation is effected.

Hence, game presentation is effected in accordance with a ringing melody, thus sustaining the player's interest in the game.

[0005]

Preferably, the control means can be arranged so as to cause a game to proceed in such a way to arrange a display object to be acquired in a background image on a game screen, to pan the background image in a predetermined direction, and to increase a score when a character is caused to perform an action so as to acquire the display object in accordance with an operation performed by way of operation means or to terminate a game when the character is caused to perform an action so as to collide with a specific display object.

[0006]

Preferably, the control means has means for transforming the character when the number of display objects acquired by the character exceeds a predetermined number. Further, the predetermined value may be set according to the type of the display object.

[0007]

Preferably, the control means corresponds to means for taking the selected music data as a background music for a game in progress. Preferably, the control means corresponds to means for displaying, within the game screen, the display object corresponding to the selected music data.

[0008]

Preferably, the control means may have means for transmitting, to the game execution support system, a control signal which enables acquisition of game information used for a game corresponding to the selected music data when the number of display objects acquired by the character exceeds a predetermined number. Further, the control means may have means for effecting a wait screen display using game information transmitted from the game execution support system. Preferably, the music data may correspond to ringing melodies.

[0009]

The present invention also provides a game execution support system which distributes game information including an operation program required for enabling execution of a game, comprising:

means for distributing game information including a game operation program in accordance with a distribution request output from a portable terminal device;

means for receiving a control signal which is transmitted from the portable terminal device and enables acquisition of game information used for a game corresponding to music data which has been selected in accordance with an instruction; and

means for enabling distribution of the game information to the portable terminal device in response to receipt of the control signal.

[0010]

According to the present invention, there is received a control signal which is transmitted from the portable terminal device, and there is enabled acquisition of game information used for a game corresponding to music data which has been selected in accordance with an instruction. Accordingly, game information can be acquired by means of operation of a portable terminal device. Further, the music data may correspond to ringing melodies.

[0011]

There is provided a computer-readable recording medium having recorded thereon a program for activating a portable terminal device equipped with music data registration means, which registration means registers music data sets corresponding to a plurality of distributed music data sets, comprising a program for effecting:

storage of game information distributed from a game execution support system which distributes game information including a game operation program; and

execution of the operation program for causing a game to proceed, and game presentation in consideration of music data which have been selected from among music data sets in accordance with an instruction. When a computer executes a program, processing operations are performed. Presentation according to music data is effected, thereby sustaining the player's interest in a game.

[0012]

There is also provided a computer-readable recording medium having recorded thereon a program for activating a game execution support system which distributes game information including an operation program required for effecting a game, comprising a program for effecting:

distribution of game information including a game operation program in accordance with a distribution request output from a portable terminal device;

receipt of a control signal which is transmitted from the portable terminal device and enables acquisition of game information used for a game corresponding to music data which has been selected in accordance with an instruction; and

distribution of the game information to the portable terminal device in response to receipt of the control signal.

When a computer executes a program, processing operations are performed. As a result, game information can be acquired by means of operation of a portable terminal device.

[0013]

In a recording medium, the music data correspond to ringing melodies. The recording mediums correspond to recording mediums which enable reading and recording of digital contents: e.g., semiconductor recording mediums such as ROM or semiconductor ICs; optical recording mediums such as DVD-ROM or CD-ROM; magnetic recording mediums such as flexible disks; and magneto-optical recording mediums such as MO.

[Embodiments of the Invention]

Embodiments of the invention will be described below with reference to the drawings.

[0014]

(Construction)

Fig. 1 is a block diagram showing a game execution support system according to a preferred embodiment of the present invention. A game execution support system 1 comprises a portable terminal device 100 owned by a user who acts as a player; a ringing melody distribution apparatus 200 for distributing ringing melodies; and a game execution support apparatus 300 for distributing game information, including a game operation program required for executing a game. The device and apparatus are connected to a communications network 400. Naturally, a plurality of portable terminal devices 100 can be used. For the sake of facilitating an explanation, one portable terminal device 100 is employed. The communications network 400 is embodied through use of, e.g., the Internet. The ringing melody distribution apparatus 200 and the game execution support apparatus 300 are embodied as a single computer.

[0015]

Fig. 2 is a block diagram showing the game execution support apparatus 300. The game execution support apparatus 300 comprises a processing section 310 embodied in a CPU which operates in accordance with a processing program; an input section 320 which can be embodied in an input device such as a mouse; a display section 330 which can be embodied in a display device such as a CRT; and a database (DB) 340 which can be embodied in a hard disk drive. A table region 350 is formed in the DB 340, and lookup on and updating of a table stored in the table region 350 are performed by the processing section 310.

[0016]

Fig. 5 is a descriptive view of an item table 351 stored in the table region 350. The item table 351 shown in Fig. 5 comprises personal IDs which are identifiers assigned to respective users (players), a plurality of ringing melody IDs which are identifiers assigned to ringing melodies, and a flag showing whether or not 100 items; that is, item 1 through item 100, which are set for each of ringing melodies, can be distributed. When a flag assumes "1," a corresponding item can be distributed. In contrast, when the flag assumes "0," a corresponding item cannot be distributed.

[0017]

In an example shown in Fig. 5, in relation to a user assigned personal ID "00000001," a flag for item 100 allocated to a ringing ID "0001" cannot be distributed. Even in relation to a ringing melody ID "0001," a flag for item 1 has been changed from 0 to 1, and item 1 can be distributed.

[0018]

With reference to a block diagram shown in Fig. 3, the construction of the portable terminal device 100 is described. The portable terminal device 100 comprises a processing section 110 embodied in a CPU which operates in accordance with a processing program; an operation section 120 which can be embodied in control buttons; a display section 130 which an be embodied in a display device such as a color liquid-crystal display; a storage section 140 which can be embodied in a nonvolatile memory device; and a sound output section 170 which outputs sound. More specifically, items which are to be displayed on the display section 130 are selectively activated by means of actuation of buttons, thereby enabling the player to perform required operations.

[0019]

Tables 150 are stored in the storage section 140 of the portable terminal device 100, and an operation program storage area 160 for storing operation programs is formed in the storage section 140. Distributed operation programs are stored in the operation program storage area 160. Other character information items are stored in an unillustrated area in the storage section 140.

[0020]

The portable terminal device 100 can be embodied in a portable cellular phone or a compact, transportable information processor featuring mobility. Here, provided that the portable terminal device 100 is embodied in a portable cellular phone, the system configuration shown in Fig. 1 must include a tandem switch such as a repeater station. In order to facilitate comprehension of the principal feature of the present invention, the present embodiment is described while a tandem switch, such as a repeater station, is intentionally omitted.

[0021]

Figs. 6, 7, and 9 are descriptive views of tables for explaining examples of the tables 150. A ringing melody registration table 151 shown in Fig. 6 stores ringing melody IDs assigned to ringing melodies distributed by the ringing melody distribution apparatus 200; titles of ringing melodies; and musical information, such that they are associated with each other. Further, ringing melody numbers sequentially assigned to melodies from 1 by the processing section 110 are stored in the ringing melody registration table 151. The processing section 110 is constructed such that contents of the ringing melody registration table 151 are displayed in the form of a list on the display section 130, by means of operation of the operation section 120. In the example shown in Fig. 6, ringing melody ID "0001," the title of the ringing melody "A," and musical information "C" are appended to a corresponding ringing melody number "1," and these information items are stored in the ringing melody registration table 151.

[0022]

A fruit image table 152 shown in Fig. 7 is for setting, for each melody number, a fruit, which serves as a display object to be acquired by a character during a later game operation. Ringing melody numbers and corresponding fruit images are stored in the fruit image table 152 so as to become associated with each other. A display object is changed within a game screen for each ringing melody for which selection been instructed, thereby enabling sustainment of the player's interest in a game to a much greater extent. Fig. 8 shows specific examples of fruit images. Bananas, grapes, strawberries, cherries, and pineapples are prepared as fruit images. Needless to say, the fruit images are not limited to these examples.

[0023]

A character transformation table 153 shown in Fig. 9 stores kinds of fruits, a score for transformation 1, and a score for transformation 2 such that they are associated with each other. When a character to be described later has acquired fruits in a number equal to or exceeding the score for transformation 1 set for each fruit, the character undergoes first transformation. Further, when the character has acquired fruits in a number equal to or exceeding the score for transformation 2, the character undergoes second transformation. Figs. 10(a) through 10(c) are specific examples of transformation of a character 1000. When the character 1000 (see Fig. 10(a)) has acquired fruits "A" in number equal to or exceeding the score "x" for transformation 1 (as shown in Fig. 9), the character 1000 is changed in color, as shown in Fig. 10(b). Further, when the character 1000 that has undergone first transformation (see Fig. 10(b)) has acquired fruits "A" in number equal to or exceeding a score "x+3" for transformation 2, the character 1000 undergoes second transformation so as to acquire wings 1001, as shown in Fig. 10(c).

[0024]

With reference to a block diagram shown in Fig. 4, the configuration of the ringing melody distribution apparatus 200 will now be described. The ringing melody distribution apparatus 200 has a processing section 210 embodied in a CPU which operates in accordance with a processing program, and a DB 220 embodied in a hard disk drive. Ringing melody IDs assigned to ringing melodies; titles of ringing melodies; and musical information are stored in the DB 220 in such a way that they are associated with each other. The processing section 210 is arranged so as to perform lookup and updating of contents of the DB 220 in accordance with a distribution request.

[0025]

(Description of Operation)

A ringing melody distribution operation will be described with reference to a communications scenario shown in Fig. 11 and to diagrams showing transition in display screens of the display section 130 of the portable terminal device 100 shown in Fig. 12.

[0026]

(Ringing Melody Distribution Operation)

When a ringing melody list transmission instruction is issued by actuation of the operation section 120, the processing section 110 transmits a ringing melody list transmission request to the ringing melody distribution apparatus 200 (step S1100). In response to the request, the processing section 210 of the ringing melody distribution apparatus 200 retrieves titles of all ringing melodies stored in the DB 220 and transmits the thus-retrieved titles of the ringing melodies to the portable terminal device 100 (step S1102).

[0027]

In response to this, as shown in Fig. 12(a), the processing section 110 displays titles of ringing melodies on the display area 131 of the display section 130 as a ringing melody distribution list. When a user selectively activates any one title of the ringing melody list by means of the operation section 120, the processing section 110 transmits to the ringing melody distribution apparatus 200 ringing melody selection information indicating the thus-selected ringing melody (step S1104). In response to transmission of information, the processing section 210 looks up information in the DB 220 and transmits to the portable terminal device 100 a ringing melody ID assigned to the selected ringing melody, the title of the ringing melody, and musical information about the ringing melody (step S1106).

[0028]

In response to the transmission operation, the processing section 110 adds a ringing melody number to the information and newly registers the information in the ringing melody registration table 151. Further, the processing section 110 displays on the display section 130 a message to the effect that the ringing melody has been registered, such as that shown in Fig. 12(b). In this way, information pertaining to a desired ringing melody is registered in the ringing melody registration table 151.

[0029]

(Operation program distribution operation)

Next will be described an operation program distribution operation for enabling a player to play a game. When an operation program distribution instruction is issued by actuation of the operation section 120, the processing section 110 transmits an operation program distribution request to the game execution support apparatus 300 (step S1300). Then, a processing section 310 of the game execution support apparatus 300 transmits to the portable terminal device 100 an unillustrated program stored in a DB 340 or game information such as table information shown in Fig. 7 or 9 (step S1302).

[0030]

The processing section 110 stores an operation program in the operation program storage area 160 and stores table information into the tables 150, thus constructing respective tables. Thereafter, the processing section 110 executes an operation program, thus effecting a game.

[0031]

(Game Operation)

A game operation will be described with reference to a flowchart shown in Fig. 14. First, an instruction for displaying a registered ringing melody list is issued by actuation of the operation section 120 of the portable terminal device 100. The processing section 110 looks up information in the ringing melody registration table 151 and displays a ringing melody number and the title of the melody on the display section 130 such that they are associated with each other. When any one of the ringing melody numbers is selected in this state, the processing section 110 detects the thus-selected ringing melody number and looks up information in the ringing melody registration table 151. During the course of a game, there is continuously performed an operation for outputting as background music a sound, which is to be output on the basis of the musical information corresponding to the thus-detected ringing melody number, from the sound output section 170 (step S1402). As a result, presentation of a sound effect using the selectively instructed ringing melody can be controlled.

[0032]

The processing section 110 performs an operation for scrolling a background image (step S1404) and executing a game (step S1406). Figs. 16(a) through 16(d) are illustrations specifically describing the game. As a game proceeds from Fig. 16(a) through 16(d), time elapses. The processing section 110 arranges on the game screen fruits which are display objects to be acquired in a background image 1200. The background image 1200 is panned from right to left in the drawing. At this time, in accordance with operating action on the operation section 120, the character 1000 can move in any one of the rightward direction, the leftward direction, and the upward direction (denoted by X in Fig. 16(c); that is, a jump).

[0033]

When the character 1000 is caused to act so as to acquire a fruit 1050, a score (1060) is increased. In contrast, if the character 1000 is caused to act so as to collide with a spider web, which is a specific display object, a game ends (when YES is selected in step S1408). Unless the game ends (i.e., when NO is selected in step S1408), processing pertaining to steps S1402 through S1408 go on. Consequently, a simple and enjoyable game can be effected by means of moving the character 1000 through actuation of the operation section 120 and acquiring the fruit 1050 scrolled in conjunction with the background image 1200.

[0034]

During the course of progress in the game, the processing section 110 looks up information in the fruit image table 152, retrieves a fruit image corresponding to a ringing melody number assigned to the ringing melody for which selection has been instructed, and arranges the thus-retrieved fruit in the background image 1200. The processing section 110 displays within a game screen fruits corresponding to the selectively instructed ringing melody. Hence, presentation of an image corresponding to the selectively instructed ringing melody can be controlled.

[0035]

When the number of fruits acquired by the character 1000 equals or exceeds the score for first transformation, the processing section 110 causes the character 100 to transform with reference to the character transformation table 153. When the number of fruits acquired by the character 1000 equals or exceeds the score for second transformation, the processing section 110 causes the character 1000 to transform again, thus effecting a game. As a result, the player's interest in the game is sustained further. At this time, the score for first transformation and the score for second transformation are set according to the type of fruit. Hence, even when the character 1000 has a given capability, the character 1000 transforms during transformation periods which vary according to kinds of fruits. Accordingly, the nature of interest in a game is improved.

[0036]

(Item Acquisition Operation)

As shown in Fig. 17, the processing section 110 determines whether or not 10 or more fruits have been acquired. If fewer than 10 fruits have been acquired (when NO is selected in step S1700), processing is terminated. In contrast, if 10 or more fruits have been acquired (when YES is selected in step S1700), processing proceeds to step S11702, and a control signal for enabling acquisition of an item corresponding to the selectively instructed ringing melody is transmitted to the game execution support apparatus 300. At this time, the processing section 110 transmits a personal ID assigned to the owner of the portable terminal device 100 and a ringing melody ID pertaining to the selectively instructed ringing melody while they are included in the control signal.

[0037]

The processing section 310 of the game execution support apparatus 300 grasps, sequentially from item 1, an item flag which corresponds to the personal ID and the ringing melody ID, both having been transmitted and being stored in the item table 351.

First, an item flag "0" is changed to "1." For instance, when a flag assigned to item 1 assumes "0," a flag corresponding to item 1 is changed from "0" to "1."

[0038]

An item acquisition operation will be described with reference to a communications scenario shown in Fig. 18 and to diagrams showing transition in display screens of the display section 130 of the portable terminal device 100 shown in Fig. 19.

[0039]

When an item list transmission instruction has been issued by actuation of the operation section 120, the processing section 110 transmits an item list transmission request to the game execution support apparatus 300 (step S1800). The processing section 310 of the game execution support apparatus 300 draws up a list of items which are assigned an item flag for 1 and belong to corresponding personal IDs stored in the item table 351, and the thus-prepared list is transmitted to the portable terminal device 100 (step S1802).

[0040]

As shown in Fig. 19(a), the processing section 310 displays the item list on the display section 300. For instance, in the example shown in Fig. 5, in relation to the user assigned ID "00000001, only a flag for item 1 corresponding to a ringing melody ID "0001" assumes "1." Hence, the title of item 1 is displayed on the display section 300. When the user issues an item request instruction by actuation of the operation section 120, the processing section 110 transmits item list request information to the game execution support apparatus 300 (step S1804). The processing section 310 of the game execution support apparatus 300 transmits the instructed item to the portable terminal device 100 (step S1806).

[0041]

As shown in Fig. 19(b), the processing section 110 displays details of the item on the display section 300. In this example, item 1 corresponds to image information about a certain character. Items include various substances, such as objects to be provided for a character within the game screen.

[0042]

Thus, the processing section 310 receives a control signal so as to acquire an item according to a selectively instructed ringing melody transmitted from the portable terminal device 100. As a result of receipt of the control signal, the processing section 310 enables distribution of an item to the portable terminal device 100. Thus, an item can be acquired through actuation of the portable terminal device 100. Further, the processing section 110 stores the thus-acquired item in a predetermined area on the storage section 140. During a normal operation in which a game is not effected, the item is read from the storage area and displays the item on the display section 130 as a wait screen display. This improves the user's desire for acquiring an item.

[0043]

As has been described, in the present embodiment, the processing section 310 causes a game to proceed by execution of an operation program. Further, in consideration of a ringing melody selected from among ringing melodies registered in the ringing melody registration table 151, game presentation is effected. Hence, game presentation is effected in accordance with a ringing melody, thus sustaining the player's interest in the game.

[0044]

Fig. 20 is a block diagram showing hardware configuration of the principal sections of the respective pieces of apparatus shown in Fig. 1. The game execution support system comprises a CPU 2000; a hard disk drive or memory 2010 serving as a recording medium having recorded thereon a processing program 2012; an operation button or mouse 2020; and a liquid-crystal display or CRT 2030. They are interconnected by means of a bus 2040 so as to be able to mutually exchange required information. As a result of the CPU 2000 executing the processing program 2012, operations set forth can be implemented.

[0045]

The present embodiment has described utilization of a ringing melody for a portable cellular phone. Alternatively, the present invention may be applied to an information terminal device, such as a non-transportable game machine or desk-top computer, thereby enabling a user to play a game by means of utilization of distributed music data. Music data defined in claims correspond to ringing melodies. However, the music data are not limited to ringing melodies and include arbitrary music data set so as not to ring at the time of a call alert. Further, music data are not limited to music and may include data which can be perceived as sound: for example, sound of babbles of a brook, chirping of insects, or human voice. Game information defined in claims correspond to items (e.g., images of fruits) described in connection with the embodiments. However, the game information is not limited to such items. For example, game information include arbitrary image data; more appropriately, arbitrary information which can be distributed and are to be used for a game, such as game background images or character information pertaining to a game.

[0046]

Although the embodiments according to the present invention have been described, the embodiments may be susceptible to modifications or alterations within the scope of the invention. For instance, at the time of receipt or transmission of information by or from the portable terminal device 100, the user may be prompted to perform operations by means of audible notification. A user may not be allowed to perform a round of operations without entering a password by way of the portable terminal device 100. Moreover, the number of types of characters and fruits may be increased, or objects to be acquired may be embodied in forms other than fruits.

[Effect of the Invention]

As has been described above, according to the present invention, a game is caused to proceed by means of executing an operation program. Further, game presentation is effected in consideration of music data selected from music data sets. Hence, there is yielded an advantage of the player's interest in a game being sustained as a result of game presentation being performed in accordance with music data.

[Brief Description of the Drawings]

Fig. 1 a block diagram of a game execution support system 1 according to an embodiment of the present invention;

Fig. 2 is a block diagram of a game execution support apparatus 300;

Fig. 3 is a block diagram of a portable terminal device 100;

Fig. 4 is a block diagram of a ringing melody distribution device 200;

Fig. 5 is a descriptive view showing an item table 351;

Fig. 6 is a descriptive view showing a ringing melody registration table 151;

Fig. 7 is a descriptive view showing a fruit image table 152;

Fig. 8 is a descriptive view showing specific examples of fruit images;

Fig. 9 is a descriptive view of a character transformation table 153;

Figs. 10(a) through 10(c) are descriptive views showing specific examples of character transformation;

Fig. 11 is a descriptive view showing an operation for distributing a ringing melody;

Figs. 12(a) and 12(b) are descriptive views showing a display screen on the portable terminal device 100;

Fig. 13 is a descriptive view for describing an operation for distributing an operation program;

Fig. 14 is a flowchart for describing a game operation;

Fig. 15 is a descriptive view showing a display screen on the portable terminal device 100;

Figs. 16(a) through 16(d) are descriptive views for describing a game operation;

Fig. 17 is a flowchart for describing an operation for acquiring items;

Fig. 18 is a descriptive view for describing an operation for acquiring items;

Fig. 19 is a descriptive view showing a display screen on the portable terminal device 100; and

Fig. 20 is a hardware configuration of individual pieces of apparatus.

[Description of Reference Numerals]

1: game execution support system
100: portable terminal device
110: processing section
120: operation section
130: display section
140: storage section
150: tables
160: operation program storage area
170: sound output section
200: ringing melody distribution apparatus
210: processing section
220: database
300: game execution support apparatus
310: processing section
320: input section
330: display section

340: database

350: table area

151: ringing melody registration table

152: fruit image table

153: character transformation table

1000: character

2000: CPU

2010: hard disk (memory)

2012: processing program

2020: mouse (or operation button)

2030: liquid crystal display (or CRT)

2040: bus

[Designation of Document] Abstract

[Abstract]

[Object]

To effect game presentation by utilization of a ringing melody registered in a portable terminal device.

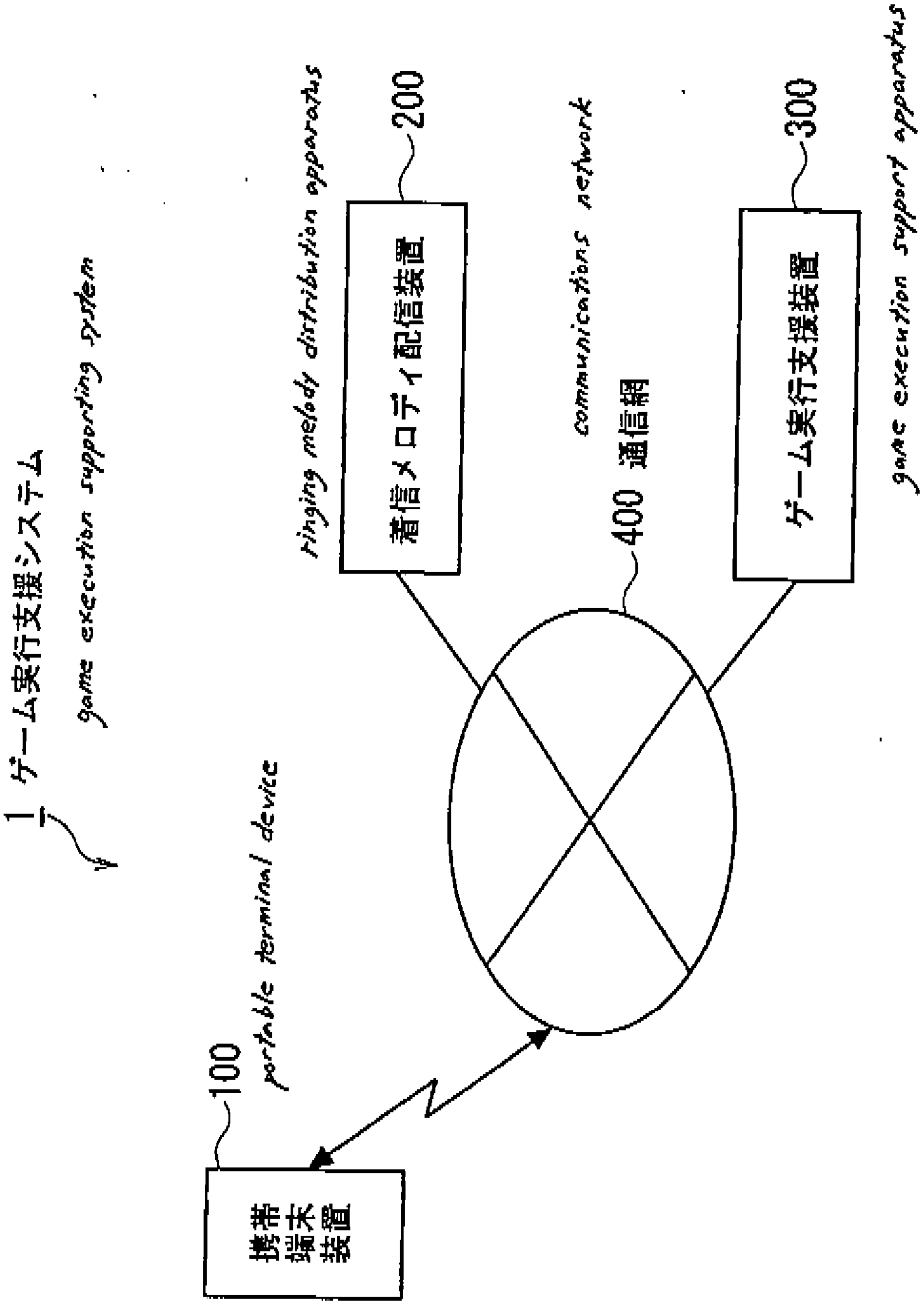
[How to Achieve the Object]

With reference to a fruit image table 152, a processing section 110 fetches a fruit image corresponding to a ringing melody number assigned to a ringing melody which has been selected previously in accordance with an instruction. The thus-fetched fruit image is provided within a background image 1200 (step S1406). Accordingly, the processing section 110 displays the fruit corresponding to the selected ringing melody within a game screen. Presentation of an image can be controlled in accordance with the selected ringing melody.

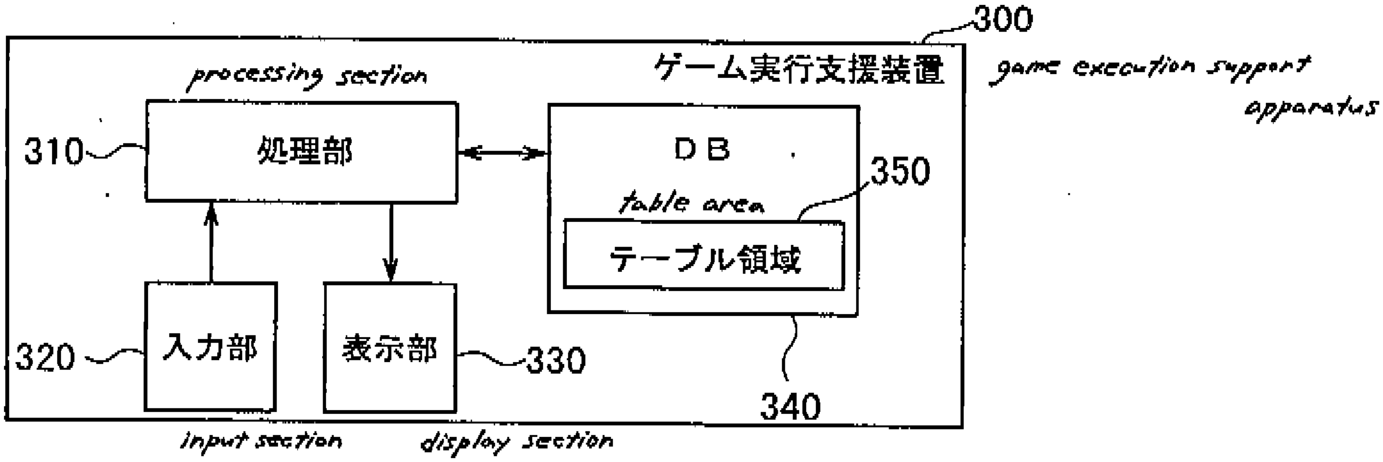
[Representative Drawing] Fig. 14

【書類名】　図面　*Designation of Document　Drawings*

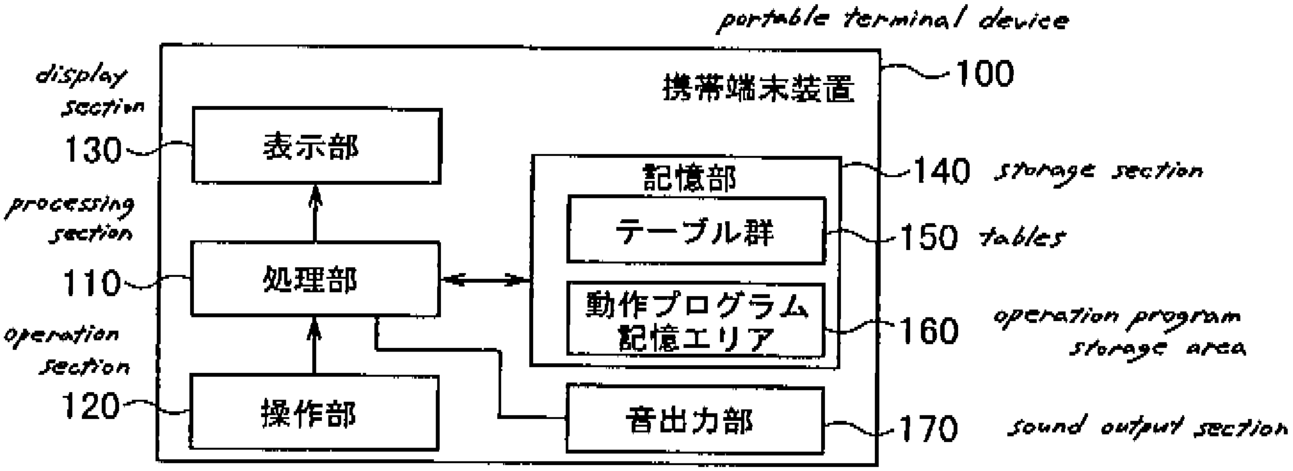
【図１】　*Fig. 1*



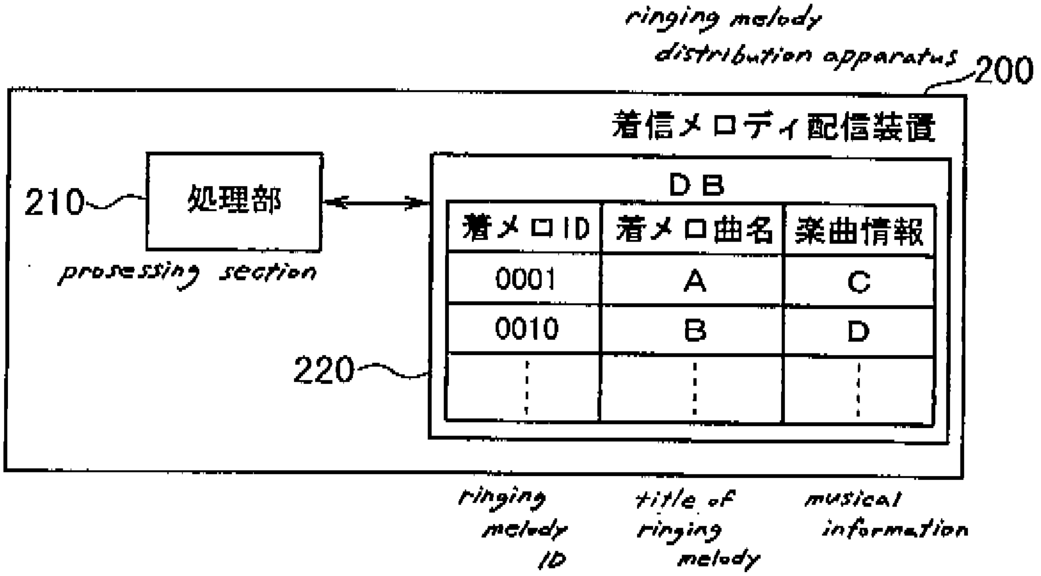
【図２】　Fig. 2



【図３】　Fig. 3



【図４】　Fig. 4



着メロID	着メロ曲名	楽曲情報
0001	A	C
0010	B	D
⋮	⋮	⋮

【図５】 Fig. 5

item taple

personal ID ringing melody ID 351 アイテム用テーブル

個人ID	着メロID 0001			着メロID 0002			----
00000001	アイテム1	--------	アイテム100	アイテム1	--------	アイテム100	----
	0→1	--------	0	0	--------	0	----
⋮	⋮			⋮			⋮

ringing melody ID

【図６】 Fig. 6

ringing melody No. ringing melody ID 151 着メロ登録テーブル ringing melody registration table

着メロ番号	着メロID	着メロ曲名	楽曲情報
1	0001	A	C
⋮	⋮	⋮	⋮

title of ringing melody musical information

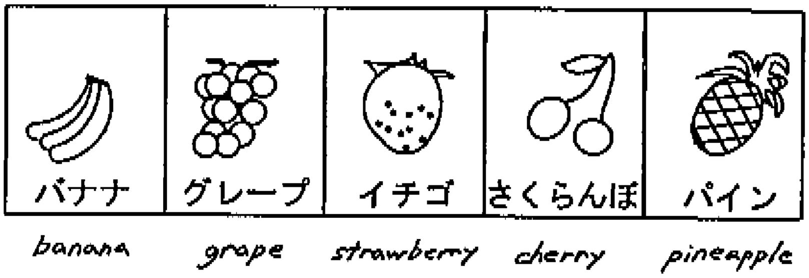
【図７】 Fig. 7

ringing melody No. 152 フルーツ画像テーブル fruit image table

着メロ番号	フルーツ画像
1	A
⋮	⋮

fruit image

【図８】 Fig. 8



【図９】 *Fig. 9*

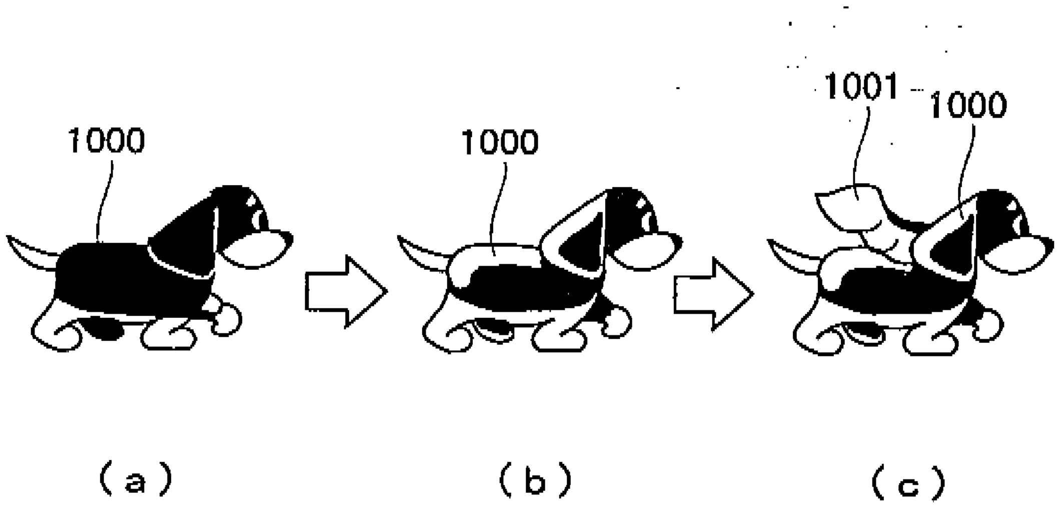
score for transformation 1　　character transformation table

153 キャラクタ変身用テーブル

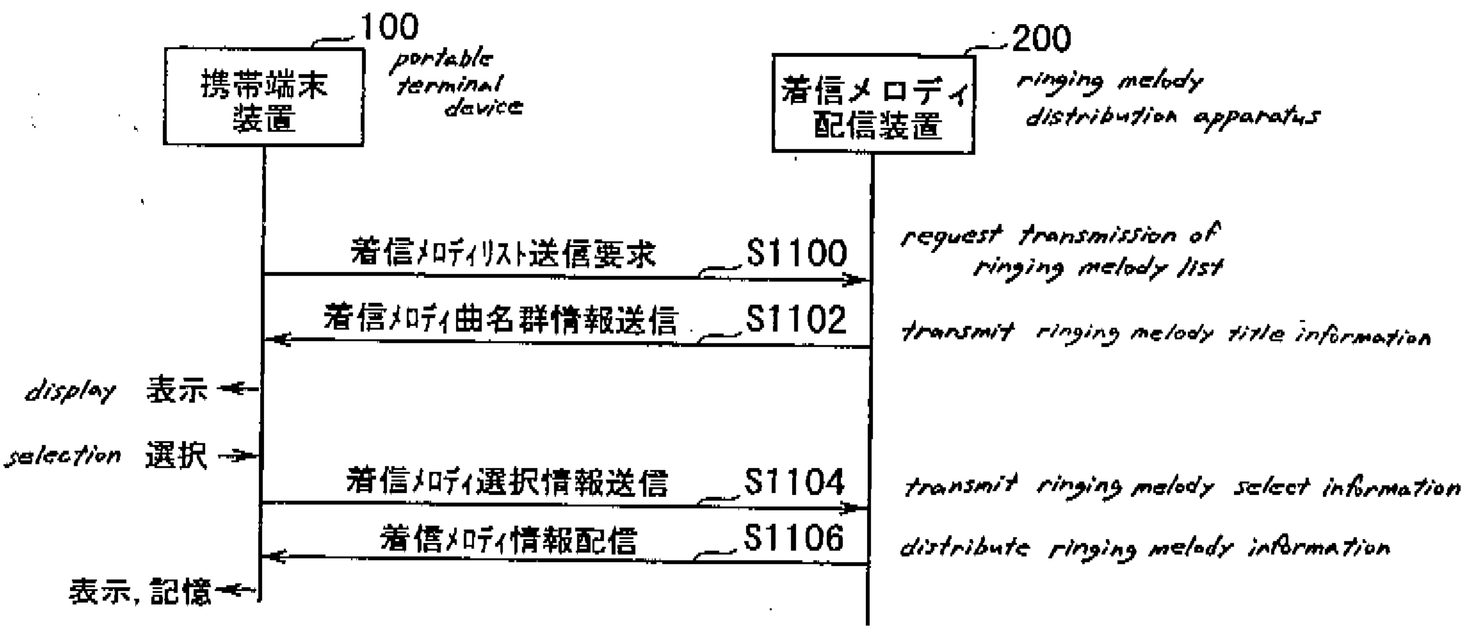
fluit　　score for transformation 2

フルーツ	変身１用 獲得数	変身２用 獲得数
A	x	x＋３
⋮	⋮	⋮

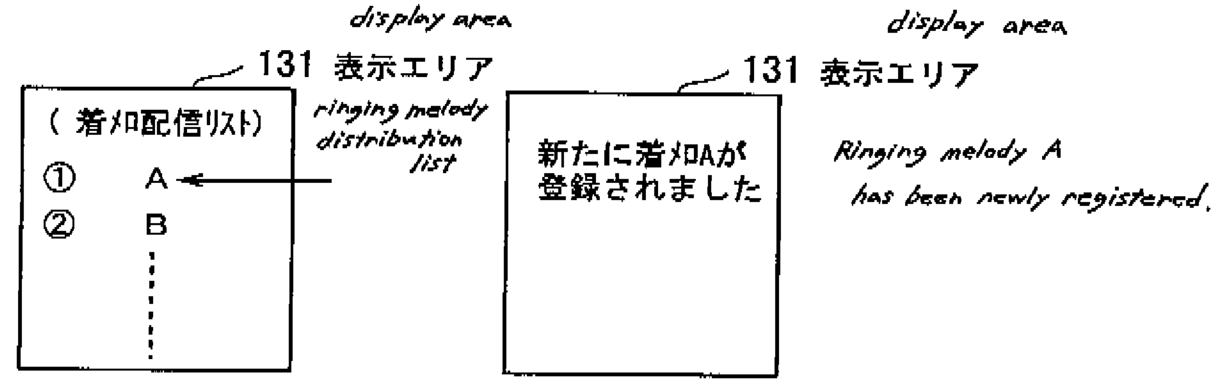
【図１０】 *Fig. 10*



【図１１】 Fig. 11

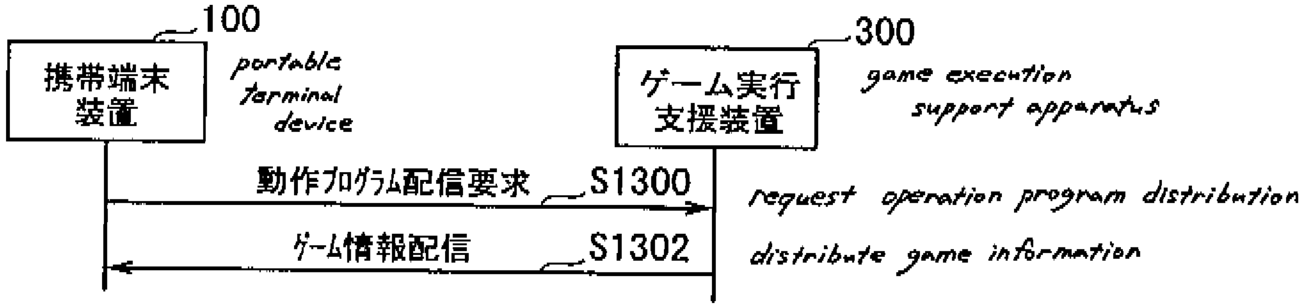

100
携帯端末装置
portable terminal device
200
着信メロディ配信装置
ringing melody distribution apparatus
着信メロディリスト送信要求
S1100
request transmission of ringing melody list
着信メロディ曲名群情報送信
S1102
transmit ringing melody title information
display 表示
selection 選択
着信メロディ選択情報送信
S1104
transmit ringing melody select information
着信メロディ情報配信
S1106
distribute ringing melody information
表示，記憶

【図１２】 Fig. 12

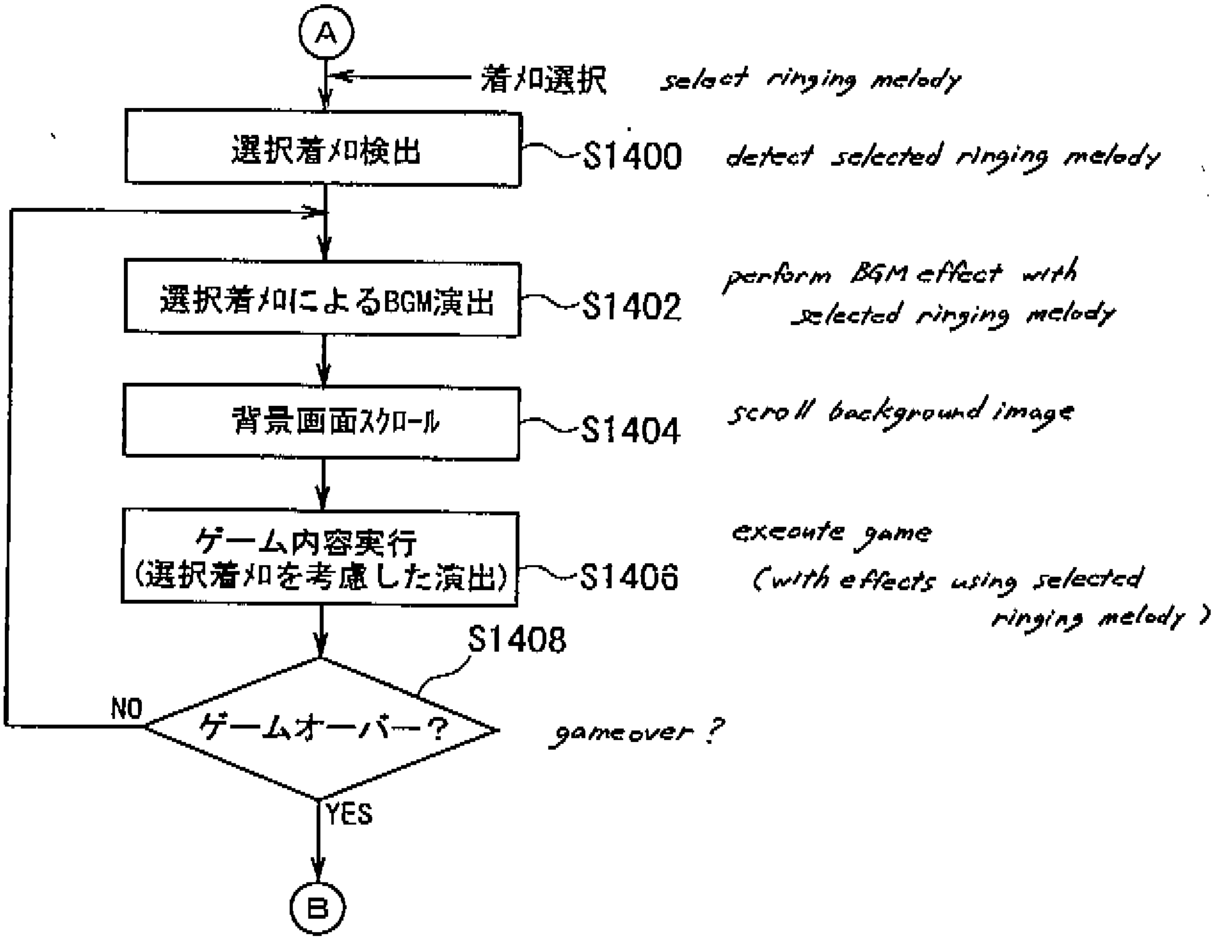

display area
131 表示エリア
（着メロ配信リスト）
ringing melody distribution list
①　A
②　B
display area
131 表示エリア
新たに着メロAが登録されました
Ringing melody A has been newly registered.

（ａ）　（ｂ）

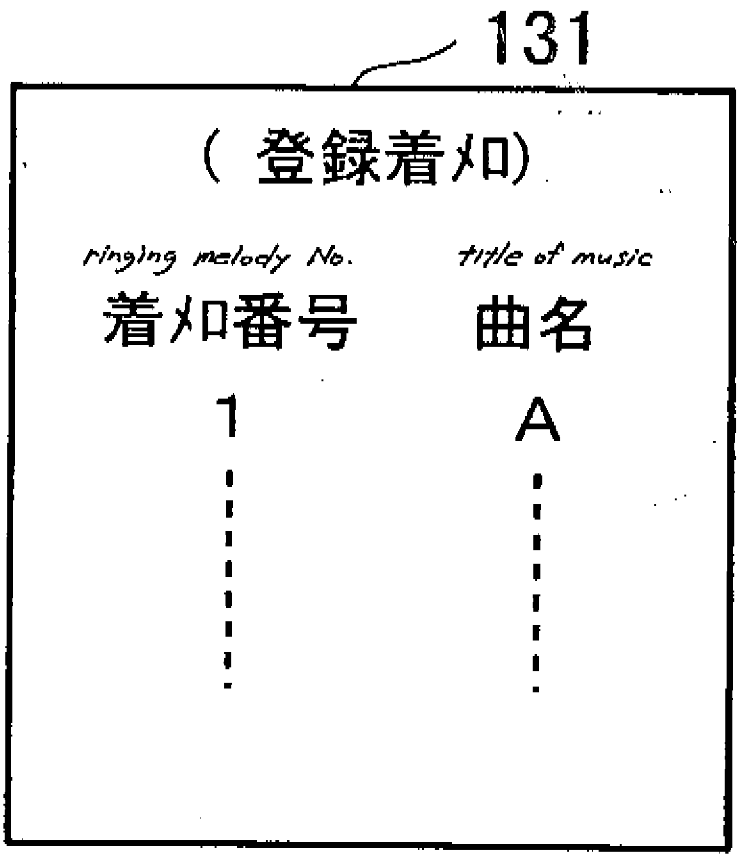
【図１３】 Fig. 13



【図１４】　Fig. 14

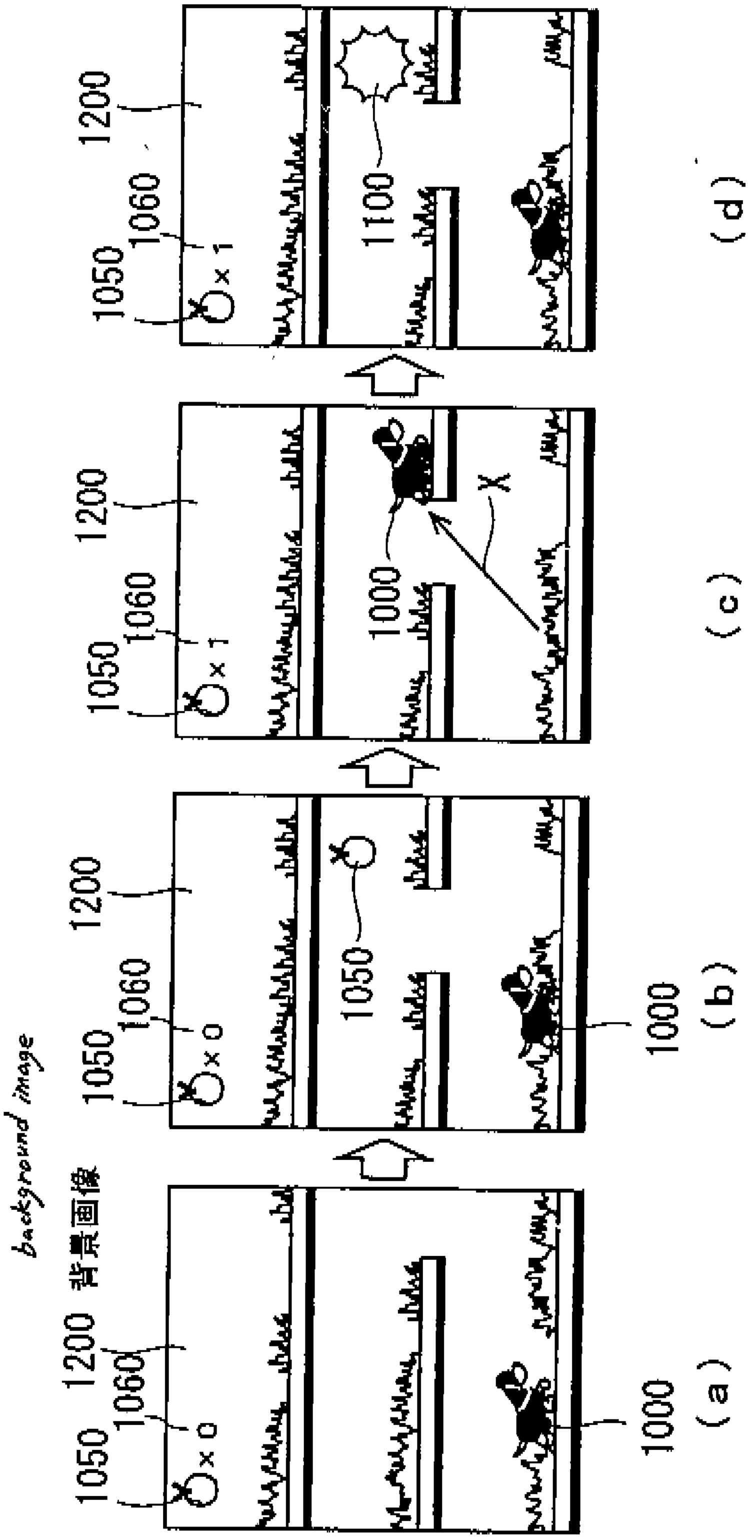

A
着ﾒﾛ選択
select ringing melody
選択着ﾒﾛ検出
S1400
detect selected ringing melody
選択着ﾒﾛによるBGM演出
S1402
perform BGM effect with selected ringing melody
背景画面ｽｸﾛｰﾙ
S1404
scroll background image
ゲーム内容実行
(選択着ﾒﾛを考慮した演出)
S1406
execute game
(with effects using selected ringing melody)
S1408
NO
ゲームオーバー？
gameover ?
YES
B

【図１５】 *Fig. 15*

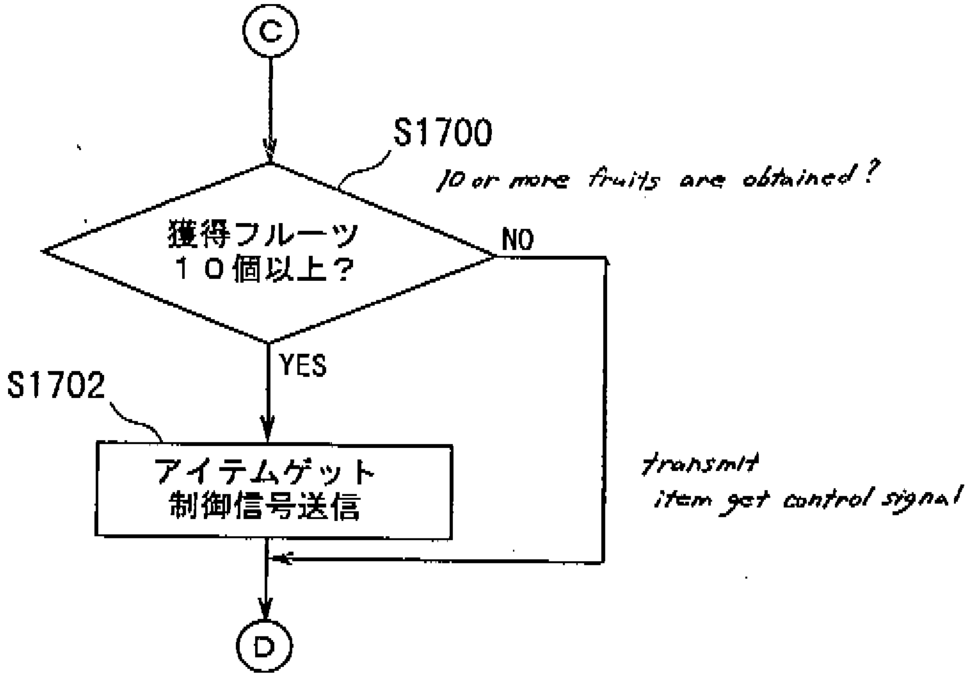


registered ringing melody

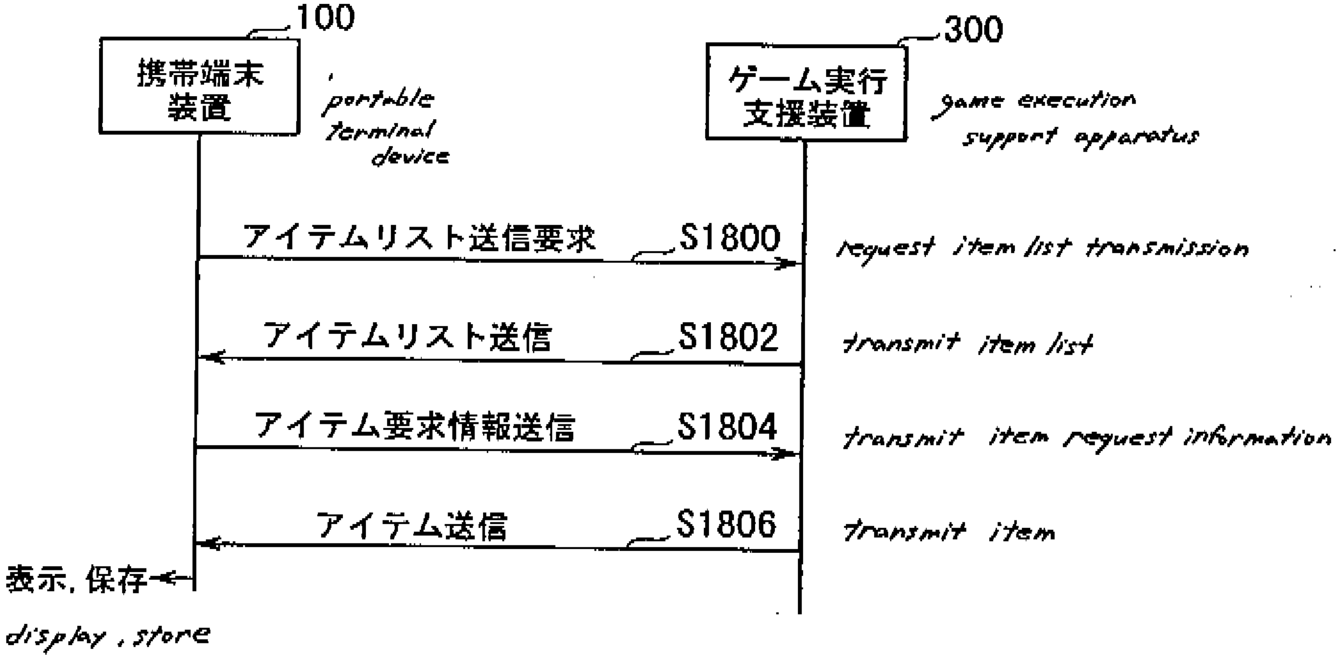
【図１６】 *Fig. 16*


(a)
×0
背景画像
background image
(b)
×0
(c)
×1
X
(d)
×1

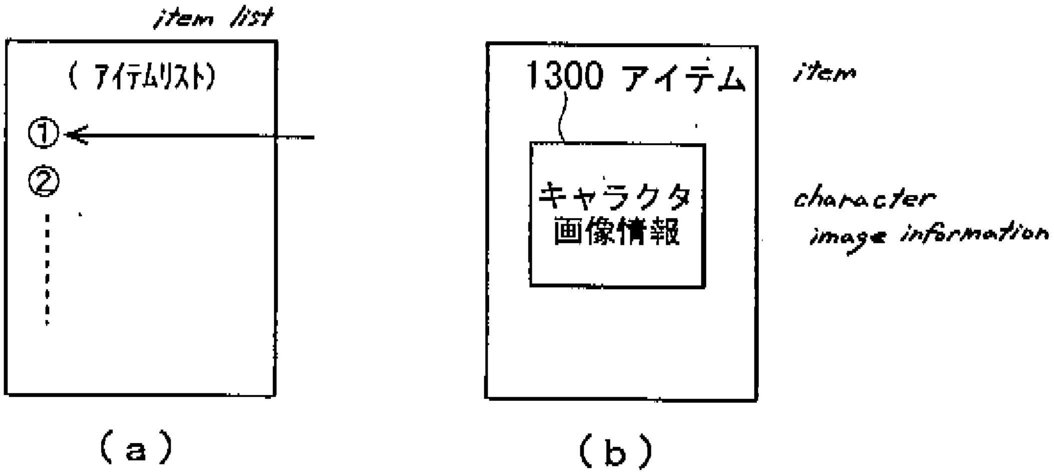
【図１７】 Fig. 17



【図１８】 Fig. 18



【図１９】　*Fig. 19*



【図２０】　*Fig. 20*